

REMARKS

Claim Status & Amendments

Applicant gratefully acknowledges the Office's withdrawal of the objections and rejections of record in the Office action mailed July 7, 2010 due to Applicant's amendments in the paper filed December 7, 2010.

Upon entry of this Amendment, claims 1, 2, 4-6, 8, 9, and 11-24 are pending, of which claims 1 and 24 are independent. Claims 3, 7, and 10 were cancelled previously without prejudice or disclaimer of the underlying subject matter, and claim 24 is new. Of the pending claims, claims 1 and 14 are currently amended. Claim 1 is amended to specify "wherein said at least one layer constitutes the internal layer of said multilayered casing". Claim 14 is amended to recite that the casing has a "water vapor transmission rate (WVTR), wherein said WVTR ... is 80 to 500 g/m²d." New claim 24 recites the features of claims 1 and 14. Support for the amendments may be found at least at 8:20-24 and 9:30-10:2 of the Specification as-filed, for example. Thus, no new matter has been added.

Rejections Under 35 U.S.C. § 103(a)

Claims 1, 2, 4-6, 8, 9, 11-15, 17-20, 22, & 23

Claims 1, 2, 4-6, 8, 9, 11-15, 17-20, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi *et al.* (US 4,764,406, hereinafter "Hisazumi"), in view of Andersen and Delius *et al.* (US 2002/0065364, hereinafter "Delius"), and Krallmann *et al.* (US 2003/0059502, hereinafter "Krallmann"). This rejection is respectfully traversed.

The Office cited Hisazumi for allegedly teaching a smoke and water vapor permeable tubular food casing impregnated with liquid smoke on the food-facing side and having at least one thermoplastic other polymer or copolymer, wherein the thermoplastic other polymer or copolymer is hydrophilic, water soluble, and swells under the action of water or water vapor.¹

Independent claim 1 recites, *inter alia*, at least one thermoplastic other polymer or copolymer, wherein the thermoplastic other polymer or copolymer is hydrophilic and has a solubility of at least 20 g/L in water at 80°C, wherein said at least one layer constitutes the internal layer of said

¹ See Final Office Action, 2-3 (Jan. 6, 2011).

multilayered casing. Hisazumi, Andersen, Delius, Krallman, and the combinations thereof fail to teach or suggest at least these features of claim 1.

Hisazumi states that “[t]he tubular films ... were filled with about 200 g of pork sausage meat [and] each sausage was dried in a smoke chamber,”² but this statement does not teach or suggest that the casing should be or is even capable of being impregnated with *liquid* smoke before it is filled with sausage meat. Hisazumi is silent with regard to impregnating a sausage casing with *liquid* smoke before filling.

Nor does Hisazumi teach or suggest a casing comprising at least one thermoplastic other polymer or copolymer, wherein the thermoplastic other polymer or copolymer is hydrophilic and has a solubility of at least 20 g/L in water at 80°C, as claimed. The Office alleged that Hisazumi teaches:

at least one thermoplastic other polymer or copolymer, wherein the thermoplastic other polymer or copolymer is hydrophilic, water-soluble and swells under the action of water or water vapor (*See Abstract, col. 3, II. 16-30, col. 8, ll. 12-24 wherein the hydrophilic copolymer is ethylene-vinyl alcohol. See also p. 7, ll. 12-13 of Applicant's Specification where Applicant discloses ethylene-vinyl alcohol as being hydrophilic. See p. 8, para. 4 of Applicant's Paper filed 12/7/2010 where Applicant admits that Hisazumi's ('406) copolymers are hydrophilic. Thus, the ethylene-vinyl alcohol as taught by Hisazumi ('406) is interpreted as being hydrophilic. Since the material is the same hydrophilic polymer as Applicant discloses in the Specification as swelling then Hisazumi's ('406) material is also interpreted as able to swell.*)

The Office stated that Applicant's specification, at page 7, lines 12-13, “discloses ethylene-vinyl alcohol as being hydrophilic.” That portion of Applicant's specification recites a list of “thermoplastic further polymer[s] or copolymer[s],” one of which may comprise “an ethylene/vinyl alcohol copolymer having a corresponding degree of saponification”.³ The very next paragraph specifies, however, that the “thermoplastic further polymer[s] or copolymer[s],” are “particularly preferably a water-soluble organic polymer which swells under the action of water or water vapor. “Water-soluble” in the context of the present invention means polymers whose solubility in water of 80 °C is at least 20 g/l.”⁴ Thus, just because ethylene-vinyl alcohol is listed under “thermoplastic

² Hisazumi, col. 8:32-37 (Aug. 16, 1988).

³ See Specification, 7:4-23.

⁴ Specification, 7:25-28.

further polymer[s] or copolymer[s],” it does not necessarily follow that Hisazumi’s ethylene-vinyl alcohols has “a solubility of at least 20 g/L in water at 80°C,” as claimed.

Hisazumi teaches a casing comprising “a mixture of 45 to 85 wt % of polyamide, 10 to 45 wt % olefin and vinyl alcohol and 5 to 30 wt % polyolefin.”⁵ The mixing ratios of “the mixture falls in the pentagonal range defined in FIG. 1 by linear lines connecting the points A, B, C, D and E, respectively.”⁶ Olefin/vinyl-alcohol copolymers, such as Hisazumi’s ethylene/vinyl alcohol (EVOH) copolymers, are hydrophilic and swellable, but do not have “a solubility of at least 20 g/L in water at 80°C,” as claimed. Thus, Hisazumi neither teaches nor suggests a food casing as claimed.

Applicant submits that Andersen, Delius, and Krallmann fail to add anything that would remedy the aforementioned deficiencies in Hisazumi.

Andersen was cited for allegedly teaching a tubular food casing having inorganic fillers for the purpose of providing a casing with swellable materials that are cost effective and easy to process.⁷ Andersen generally teaches sheets, containers, and other articles for packaging beverages and other foodstuffs,⁸ but does not teach or suggest smoke- and water-vapor-permeable food casings. Moreover, Andersen fails to teach or suggest at least one thermoplastic other polymer or copolymer having a solubility of at least 20 g/L in water at 80°C, as claimed.

Delius was cited for allegedly teaching a sausage casing containing conventional additive pigments for the purpose of providing a moist food/sausage having the desired color.⁹ Delius teaches “[a] polymer blend [having] a coherent phase made from an aliphatic and/or semiaromatic (co)polyamide and, dispersed therein, a phase made from an olefin block copolymer grafted with intramolecular carboxylic anhydrides,”¹⁰ as well as tubular food casings having at least one layer comprising the polymer blend. The grafted olefin block copolymers of Delius, however, are not at least one thermoplastic other polymer or copolymer having a solubility of at least 20 g/L in water at 80°C, as claimed.

⁵ *Id.* at col. 3:17-20.

⁶ *Id.* at col. 3:20-22.

⁷ *See* Final Office Action, at 5 (Jan. 6, 2011).

⁸ *See* Andersen, col. 1:16-26 and col. 55:1-28 (May 15, 2001).

⁹ *See* Final Office Action at 5.

¹⁰ Delius, at Abstract (May 30, 2002).

Krallmann was cited for allegedly teaching “applying liquid acidic smoke to the inner layer of a biaxially oriented tubular film before shirring.”¹¹ Krallmann, however, fails to add anything that would remedy the aforementioned deficiencies in Hisazumi, Andersen, and Delius. Namely, Krallmann fails to teach or suggest at least one thermoplastic other polymer or copolymer having a solubility of at least 20 g/L in water at 80°C.

Thus, Hisazumi, Andersen, Delius, Krallmann and the combinations thereof neither teach nor suggest the food casing as claimed.

Claims 2, 4-6, 8, 9, 11-15, 17-20, 22, and 23 depend from claim 1. Accordingly, Applicant respectfully requests favorable reconsideration and withdrawal of the rejection of claims 1, 2, 4-6, 8, 9, 11-15, 17-20, 22, and 23 under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi, in view of Andersen, Delius, and Krallmann.

Claim 16

Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi in view of Andersen, Delius, Krallmann, and Okudaira *et al.* (US 6,294,263, hereinafter “Okudaira”). This rejection is respectfully traversed.

The Office noted that Hisazumi, Andersen, Delius, and Krallmann “fail to expressly disclose the food casing being heat set,”¹² but cited Okudaira for allegedly teaching “a tubular and seamless casing, biaxially oriented and a heat-set polyamide-based food casing for the purpose of providing a fatigue resistant casing.”¹³

Okudaira, however, fails to add anything that would remedy the aforementioned deficiencies in Hisazumi, Andersen, Delius, and Krallmann. Namely, Okudaira fails to teach or suggest at least one thermoplastic other polymer or copolymer having a solubility of at least 20 g/L in water at 80°C. Thus, Hisazumi, Andersen, Delius, Okudaira, and the combinations thereof neither teach nor suggest the food casing as claimed.

¹¹ Final Office Action at 5.

¹² Final Office Action, at 9 (Jan. 6, 2010).

¹³ *Id.* (citations omitted).

Accordingly, Applicant respectfully requests favorable reconsideration and withdrawal of the rejection of claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi, in view of Andersen, Delius, Krallmann, and Okudaira.

Claims 21

Claims 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi in view of Andersen, Delius, Krallmann, and Hammer *et al.* (US 5,501,886, hereinafter “Hammer”). This rejection is respectfully traversed.

The Office noted that Hisazumi, Andersen, Delius, and Krallmann fail to expressly disclose the casing being seamless, but cited Hammer for allegedly teaching tubular, seamless, shirred sausage casings.¹⁴

Hammer, however, fails to add anything that would remedy the aforementioned deficiencies in Hisazumi, Andersen, Delius, and Krallmann. Namely, Hammer fails to teach or suggest at least one thermoplastic other polymer or copolymer having a solubility of at least 20 g/L in water at 80°C. Moreover, Hammer is directed to food casings based on regenerated cellulose, a material which is completely different from and not comparable with the materials of the present invention.

Thus, Hisazumi, Andersen, Delius, Krallmann, Hammer, and the combinations thereof neither teach nor suggest the food casing as claimed.

Accordingly, Applicant respectfully requests favorable reconsideration and withdrawal of the rejection of claim 21 under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi, in view of Andersen, Delius, Krallmann, and Hammer.

New Claim

New claim 24 is patentable because it is drawn to a casing having a water vapor transmission rate (WVTR), wherein said WVTR, determined as specified in DIN 53 122, with air impinging the casing on a single side at 23°C and at a relative humidity of 85%, is 80 to 500 g/m²d. The art does not disclose such casings.

¹⁴ See *id.* at 10.

Conclusion

In view of the remarks above, Applicant respectfully submits that the stated grounds for rejection have been properly addressed and that all of the claims are patentable, and so request favorable action thereon. The Examiner is invited to contact the undersigned if any additional information is required.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-4254, under Attorney Docket No. 2901886-000025.

Respectfully submitted,

**BAKER, DONELSON, BEARMAN,
CALDWELL & BERKOWITZ, P.C.**

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920 Massachusetts Avenue, N.W.
Suite 900
Washington, DC 20001

Telephone: 202-508-3400
Facsimile: 202-508-3402

/C.G. Moore/
Chester G. Moore, Ph.D.
Reg. No. 53,345
Telephone: 985-819-8420

David W. Woodward
Registration No. 35,020